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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,875	02/18/2004	Jeong Dae Seo	K-0611	9491

34610 7590 06/25/2007
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Chantilly, VA 20153-1200

EXAMINER

THOMPSON, CAMIE S

ART UNIT	PAPER NUMBER
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1774

MAIL DATE	DELIVERY MODE
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06/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/779,875	Applicant(s) SEO ET AL.	
	Examiner Camie S. Thompson	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed April 10, 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 8-13 is/are rejected.
- 7) ☒ Claim(s) 6-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendment and accompanying remarks filed April 10, 2007 are acknowledged.
2. Examiner acknowledges amended claims 1, 8 and 11.
3. The rejection of claims 1, 6, 8-9 and 11-12 under 35 U.S.C. 112, second paragraph is overcome by applicant's amendment.
4. The rejection of claims 1, 8 and 11 under 35 U.S.C. 102(e) as being anticipated by Suzuki et al., U.S. Patent Number 6,830,829 is overcome by applicant's amendment.
5. The rejection of claims 1 and 6-13 under the 35 U.S.C. 10 as the same invention is withdrawn due to applicant's argument.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

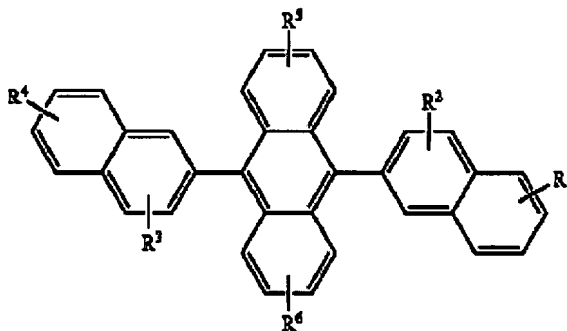
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tutt et al., U.S. patent Number 7,052,351.

Tutt discloses an organic light emitting device comprising a first electrode deposited over a substrate and a first emissive layer deposited on to the first electrode. Additionally, the reference discloses a hole blocking layer deposited over the first emissive layer and a second emissive layer deposited on the second emissive layer. Tutt discloses a second electrode over the second

Art Unit: 1774

emissive layer (see column 2, lines 25-46). It is disclosed in column 15, lines 40-48 that the hole blocking layer can comprise an anthracene compound. Column 8, lines 17-52 of the reference discloses an anthracene compound with the general formula



Tutt discloses that the anthracene compound is material capable of supporting electroluminescence. The Tutt reference reads on the instant formula (1) when R¹ to R⁶ represent an alkyl group of from 1 to 24 carbon atoms; an substituted or unsubstituted aryl group of from 5 to 20 carbon atoms. The anthracene listed in the Tutt reference is used as a host material in the emissive layer. Tutt does not specifically disclose the listed anthracene compound for the hole blocking layer. However, Tutt does disclose that an anthracene compound can be used in the hole blocking layer. Therefore, it would have been obvious to one of ordinary skill in the art to use the anthracene compound listed in the reference in the hole blocking layer in order to shift the hole –electron recombination.

8. Claims 6-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not provide for the recited electroluminescence

Art Unit: 1774


device, further including the hole blocking layer comprising a compound selected from B-1 to B-60 listed in the instant claims.

Response to Arguments

9. Applicant's arguments with respect to claims 1 and 6-13 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena L Dye, can be reached at (571) 272-3186. The fax phone number for the Group is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


RENA DYE
SUPERVISORY PATENT EXAMINER
AU 1774